PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.:	10/784,031
Filing Date:	February 20, 2004
Applicant:	Cory Schaffhausen
Group Art Unit:	3734
Examiner:	Lindsey Bachman
Title:	METHOD AND APPARATUS FOR PERFORMING MENISCUS REPAIR
Attorney Docket:	5490-000359

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

AMENDMENT AFTER FINAL

Sir:

In response to the Second Final Office Action mailed June 29, 2007, please amend the application as follows and consider the remarks set forth below.

Applicant hereby petitions under the provisions of 37 C.F.R. § 1.136(a) for a one month extension of time in which to respond to the outstanding Office Action and includes a fee as set forth in 37 C.F.R. § 1.17(a) with this response for such extension of time.

Amendments to the Claims begin on page 2 of this paper.

Remarks begin on page 9 of this paper.

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A method of repairing a tear in body tissue comprising:

inserting a needle containing a retaining head therein from a first insertion position on a first outer surface of the body tissue, through the tear and to a second outer surface of the body tissue;

ejecting said retaining head from said needle, said retaining head grasping said second outer surface in an engaged position; and

advancing an anchor coupled to said retaining head from a second insertion position on said first outer surface of the body tissue to a position within the body tissue intermediate a portion of the tear and said second outer surface of the body tissue, said anchor coupled to said retaining head by a flexible member that extends a distance along said first outer surface of the body tissue from said first insertion position to said second insertion position, wherein a first terminal end of said flexible member is coupled to said retaining head and a second terminal end of said flexible member is coupled to said anchor.

2. (Previously Presented) The method of claim 1 wherein ejecting said retaining head from said needle comprises:

advancing a plunger within said needle toward a distal opening of said needle;

deploying said retaining head from said distal opening; and

removing said needle from said body tissue at said first insertion position.

3. (Original) The method of claim 2 wherein advancing a plunger further comprises:

guiding said flexible member along a longitudinal slot disposed along said needle.

4. (Original) The method of claim 1 wherein advancing an anchor comprises:

locating a distal end of a hollow tube on said second insertion position, said hollow tube containing said anchor therein; and

advancing a plunger within said hollow tube a predetermined distance toward said distal end thereby advancing said anchor to a desired location.

5. (Original) The method of claim 4 wherein advancing a plunger further comprises:

guiding said flexible member along a longitudinal slot disposed along said hollow tube.

6. (Original) The method of claim 4 wherein locating a distal end of a hollow tube comprises:

locating said distal end of said hollow tube a predetermined offset distance from said first insertion position whereby advancing said anchor to said desired location provides a taught flexible member between said first and second insertion position.

7. (Previously Presented) The method of claim 1 wherein ejecting said retaining head and advancing said anchor are simultaneously performed.

8-19. (Cancelled)

20. (Currently Amended) A method of repairing a tear in body tissue comprising:

passing a needle from a first portion of the body tissue, through the tear and to an outer surface of the body tissue;

ejecting a retaining head from said needle such that said retaining head lies against said outer surface in an engaged position; and

inserting an anchor coupled to said retaining head by a flexible member from said first portion, through the tear to a desired location within the body tissue intermediate the tear and said outer surface of the body tissue, wherein said flexible member extends a distance along said first portion of the body tissue and wherein a first terminal end of said flexible member is coupled to said retaining head and a second terminal end of said flexible member is coupled to said anchor.

21. (Cancelled).

22. (Previously Presented) The method of claim 20 wherein inserting said anchor to said desired location comprises:

inserting said anchor to said desired location wherein said flexible member is taught between said anchor and said retaining head.

23. (Previously Presented) The method of claim 20 wherein ejecting said retaining head from said needle comprises:

advancing a plunger within said needle toward a distal opening of said needle;

deploying said retaining head from said distal opening; and

removing said needle from said body tissue.

24. (Previously Presented) The method of claim 23 wherein advancing said plunger further comprises:

guiding said flexible member along a longitudinal slot disposed along said needle.

25. (Previously Presented) The method of claim 23 wherein advancing said anchor comprises:

locating a distal end of a hollow tube onto the body tissue, said hollow tube containing said anchor therein; and

advancing a plunger within said hollow tube a predetermined distance thereby advancing said anchor to said desired location.

26. (Previously Presented) The method of claim 25 wherein the body tissue is a meniscus and the tear is a tear in the meniscus;

wherein said first portion of the body tissue is a first outer surface of the meniscus;

wherein said outer surface of the body tissue is a second outer surface of the meniscus; and

wherein the desired location is in the meniscus.

27. (Currently Amended) A method of repairing a tear in a meniscus comprising:

inserting a cannulated piercing member containing a retaining head therein from a first insertion position on a first outer surface of the meniscus, through the tear and to a second outer surface of the meniscus, said retaining head having a longitudinal body and positioned generally longitudinally within said cannulation;

ejecting said retaining head from said piercing member such that said retaining head engages said second outer surface of the meniscus; and

advancing an anchor coupled to said retaining head from a second insertion position on said first outer surface of the meniscus to an implanted position, wherein in said implanted position, said anchor passes through a portion of the tear and remains within tissue defining the meniscus, said anchor coupled to said retaining head by a flexible member that extends a distance along said first outer surface of the meniscus, wherein a first terminal end of said flexible member is coupled to said retaining head and a second terminal end of said flexible member is coupled to said anchor.

28. (Previously Presented) The method of claim 27 wherein ejecting said retaining head from said piercing member comprises:

advancing a plunger within said piercing member toward a distal opening of said piercing member;

deploying said retaining head from said distal opening; and

removing said piercing member from said meniscus at said first insertion position.

29. (Previously Presented) The method of claim 28 wherein advancing a plunger further comprises:

guiding said flexible member along a longitudinal slot disposed along said piercing member.

30. (Previously Presented) The method of claim 27 wherein advancing an anchor comprises:

locating a distal end of a hollow tube on said second insertion position, said hollow tube containing said anchor therein; and

advancing a plunger within said hollow tube a predetermined distance toward said distal end thereby advancing said anchor to a desired location in the meniscus.

31. (Previously Presented) The method of claim 30 wherein locating a distal end of a hollow tube comprises:

locating said distal end of said hollow tube a predetermined offset distance from said first insertion position whereby advancing said anchor to said desired location provides a taught flexible member between said first and second insertion positions to substantially close the tear.

32. (Previously Presented) The method of claim 30 wherein said cannulated piercing member and said hollow tube are distinct components fixedly coupled such that ejecting said retaining head and advancing said anchor are simultaneously performed.

REMARKS

Claims 1-7, 20, and 22-32 are now pending in the application. Claims 1 and 20 have been amended simply to correct a grammatical oversight in the preamble. Claims 20 and 27 have been amended to insert a comma. The basis for the foregoing amendments may be found throughout the written description, drawings, and claims as originally filed. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 103

Claims 1-7, 20 and 22-31 stand rejected under 35 U.S.C. § 103(a) as being anticipated by U.S. Publication 2002/0019649 (Sikora) and further in view of U.S. Pat. No. 5,702,462 (Oberlander) and U.S. Publication 2003/0130694 (Bojarkski). This rejection is respectfully traversed.

At the outset, Applicants note that the instant disclosure provides and claims a method of repairing a tear in body tissue wherein a retaining head locates against an outer surface of the tissue and an anchor locates within the body tissue at a location intermediate a portion of the tear and the outer surface of the tissue. FIG. 7 of the instant disclosure is copied immediately below for reference.

COPY

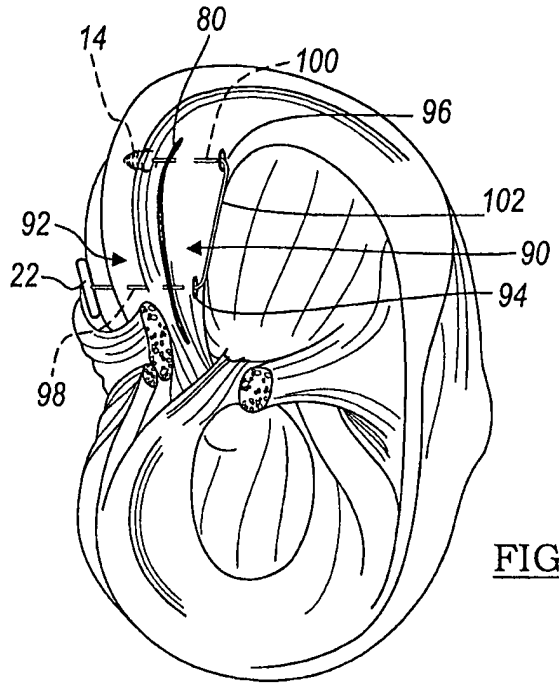
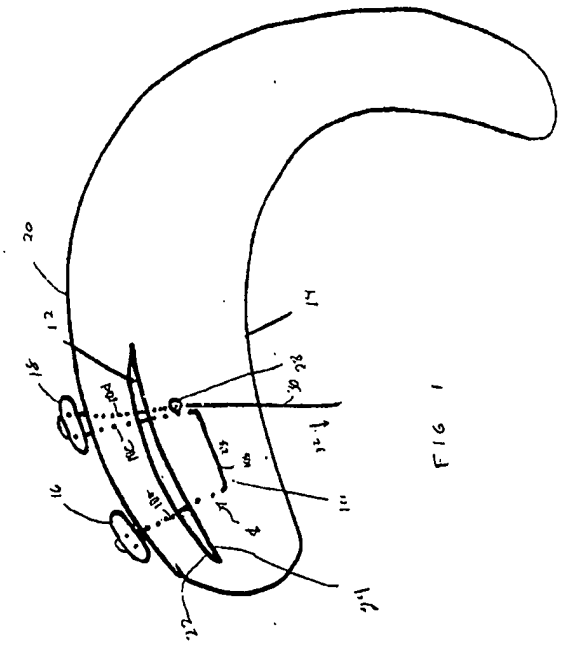


FIGURE 7

In the most recent Office Action, it is acknowledged that Sikora does not teach that the anchor is placed between the tear and the outer portion of the body tissue (see item 3). FIG. 1 of Sikora is copied immediately below for reference.



The most recent Office Action cites Oberlander as curing this deficiency. Oberlander teaches a method of locating two anchors within the tissue (i.e. not against an outer surface like Sikora). FIG. 6 of Oberlander is copied immediately below for reference.

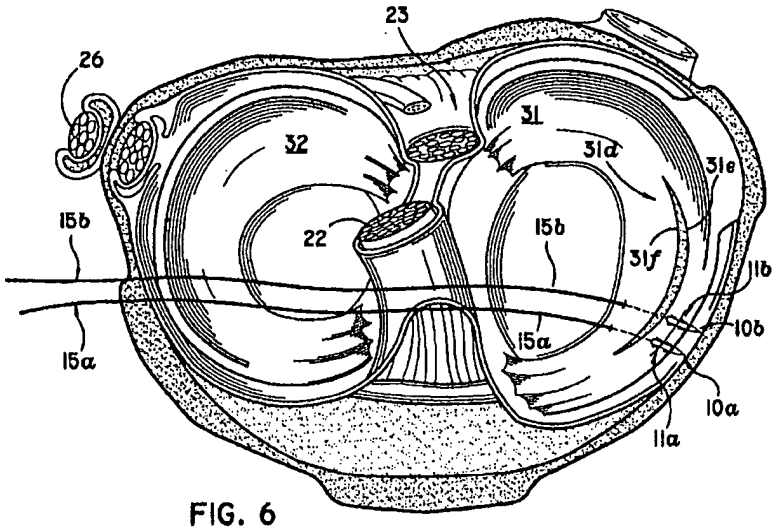


FIG. 6

Oberlander specifically teaches away from locating any anchors on an outer surface of the tissue. Oberlander identifies deficiencies in the prior art that require an entrance puncture and an exit puncture. Specifically, Oberlander states, "all of these techniques involve the penetration of the meniscus on two sides, thereby creating an entrance puncture and an exit puncture, the exit puncture typically being located at the outer rim of the meniscus". See Col. 1, Lines 65-67 through Col. 2, Line 1. By requiring both anchors to be embedded within the tissue (see FIG. 6 above), Oberlander overcomes the deficiencies identified in the prior art. Applicants submit that it is established that where references, instead of suggesting the invention, seek to warn to avoid the suggestion, such references diverge from and teach away from the invention at hand and it is error to find obviousness based on such references. In re Fine, 837

F.2d 1071, 1074 (Fed. Cir. 1988) (citing W.L. Gore & Assocs. V. Garlock, Inc., 721 F.2d 1540, 1550 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984)).

Moreover, Applicants submit that the Office Action cannot simply pick and choose *some* features of Oberlander (i.e. *one* of the anchors that is embedded within the tissue) without considering the reference as a whole (i.e. specifically directed toward having *both* anchors embedded within the tissue so that no external anchors are present). The Federal Circuit has ruled "[Respondent cannot] pick and choose among the individual elements of assorted prior art references to recreate the claimed invention". Smithkline Diagnostics v. Helena Lab. Corp., 859 F.2d 878, 887 (Fed. Cir. 1988).

The Office Action also refers to FIG. 83 of Bojarski. In FIG. 83, copied immediately below, two anchors are located against the outside surface of the tissue.

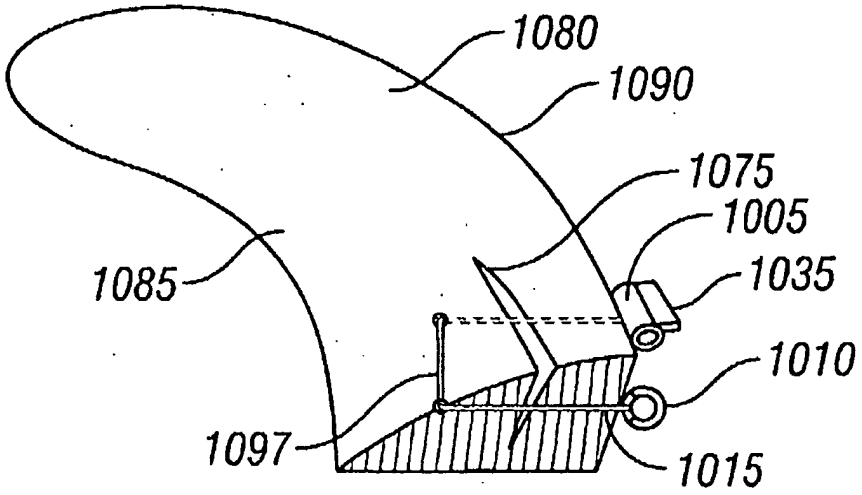


FIG. 83

The Office Action fails to provide a reference, or a proper combination of references, that teach a method of repairing a tear in tissue wherein distal ends of a

flexible member are coupled to anchors, a first anchor (retaining member) is located against an outer surface of the tissue and a second anchor is located within the body tissue at a location intermediate a portion of the tear and the outer surface of the tissue. Therefore, reconsideration and withdrawal of this rejection is respectfully requested.

Claim 32 stands rejected as being unpatentable over Sikora and Oberlander and Bojarksi, as applied to Claim 30, in further view of U.S. Pat. No. 4,669,473 (Richards). This rejection is respectfully traversed. Applicants note that claim 32 ultimately depends from claim 27. For at least the reasons set forth above, Applicants submit that claim 27 and all dependent claims therefrom are in condition for allowance.

Therefore, reconsideration and withdrawal of this rejection is respectfully requested.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: Oct. 29, 2007

By: _____

Richard W. Warner
Reg. No. 38,043

Brian D. Hollis
Reg. No. 51,075

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. Box 828
Bloomfield Hills, Michigan 48303
(248) 641-1600

BDH/lf-s